

which is required by claim 1.” The Examiner further noted that an After-final request for reconsideration would be “seriously considered.”

Briefly recapitulating, the present invention (claims 1, 6, and 7) is directed to a semiconductor device including an observation part which is configured to detect a fluctuation in potential in a MOS transistor including a portion where a fluctuation in potential is to be measured. To that end, the semiconductor device includes first and second MOS transistors. Each MOS transistor includes a gate electrode. The gate electrode of the MOS transistor which forms the observation part is electrically insulated from the gate electrode of the second MOS transistor which includes the portion where the fluctuation in potential is measured.

In contradistinction thereto, Applicant's submit that the semiconductor device disclosed in the Petrosino patent includes a gate electrode 24 and a gate electrode 26 which are not electrically isolated from one another. Consequently, Petrosino is not believed to anticipate or render obvious the subject matter defined by claims 1, 6, and 7 of the present application.

Regarding claim 11, it appears from the office action that the first potential of claim 11 is regarded as a potential which is applied to the second MOS transistor. However, Applicants respectfully submit that the first potential in claim 11 is applied to the second impurity region which is included in the first MOS transistor, and not in the second MOS transistor. Moreover, Petrosino does not show which potential is applied to the p-type region 12 which the office action regards as corresponding to the second impurity region of the first MOS transistor. Accordingly, the obviousness rejection of claim 11 is improper as the rejection is based on the office action's improper assumption about the invention of claim 11.

On the other hand, the office action regards the MOS transistor 14 of Petrosino as constituting a part of the CMOS transistor. It is true that the technique of Petrosino can be applied to a CMOS device. However, in general, a CMOS device such as a CMOS microprocessor or the like does not consist only of a CMOS transistor, but it also includes a diode and a single MOS transistor. The office action assumes, in a limited way, that the MOS transistor 14 of Petrosino constitutes a part of the CMOS transistor in spite of the fact that there is no such recitation in Petrosino. Applicants respectfully submit that the asserted assumption is based on improper hindsight.

Moreover, though claim 11 recites that the observation part includes the second pn junction having the third and fourth impurity regions, the office action assumes, in a limited way, that the third and fourth impurity regions are elements of the P-channel MOS transistor which constitutes the CMOS transistor together with the second MOS transistor. This further evidences improper hindsight.

Finally, in the prior art described in the present specification (figure 11), the pn junction formed by the n^+ impurity region 3 and the P-region 6 of the MOS transistor 110 is irradiated with a laser beam 20, thereby fluctuation in potential of the drain region (n^+ impurity region 3) is observed (please see page 4, lines 6-14 of the present specification). That is, the structure shown in figure 11 can observe fluctuation in potential of the drain region of the MOS transistor 110 by itself. There is no disclosure in Petrosino or the prior art in the present specification (figure 11) that provides motivation to combine the structure of figure 11 with Petrosino to observe the drain region of the MOS transistor 110 in figure 11 by irradiating the region 29 of the MOS transistor 26 of Petrosino with the laser beam 25, in spite of the fact that the structure shown in figure 11 can observe fluctuation in potential of the drain region of the MOS transistor 110 by itself. In other words, the fact that the MOS

transistor 14 of Petrosino constitutes a part of the CMOS transistor and the structure of figure 11 is a CMOS transistor is not sufficient for providing motivation to combine the structure of figure 11, which is able to observe fluctuation in potential of the drain region by itself, with the structure disclosed by Petrosino. Accordingly, the obviousness rejection to claim 11 is improper, and claim 11 should be allowed.

For at least the foregoing reasons, Applicant submits that all active claims are allowable. Moreover, because Claim 1 is believed to be allowable, all of Claims 2-19 including the non-elected claims are believed to be allowable as well.

In view of the present amendment and in light of the foregoing discussion, it is respectfully submitted that the case is in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Registration No. 25,599
Attorney of Record
W. Todd Baker
Registration No. 45,265



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Tel: (703) 413-3000

Fax: (703) 413-2220

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